

ABSTRACT

To improve the dynamic range of an output signal from a CCD image sensor, an exposure time, beginning with the completion of an electronic shutter operation started in response to an STTRG pulse (22) and lasting until the beginning of a frame shift operation, is divided into two parts according to a WTTRG pulse 26. Information charges accumulated in an odd line during a preceding first exposure time A are vertically transferred to an adjacent even line at a timing defined by the WTTRG pulse 26, and the information charges for both lines are compounded there. Another exposure is applied to the odd and even lines during a second exposure time B, and information charges generated in the odd and even lines are vertically transferred into a horizontal CCD shift register for compounding. The thus-compounded charges are output from a CCD image sensor through horizontal transfer.

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